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VOL. 9 NO. 10 MARCH 6, 1959

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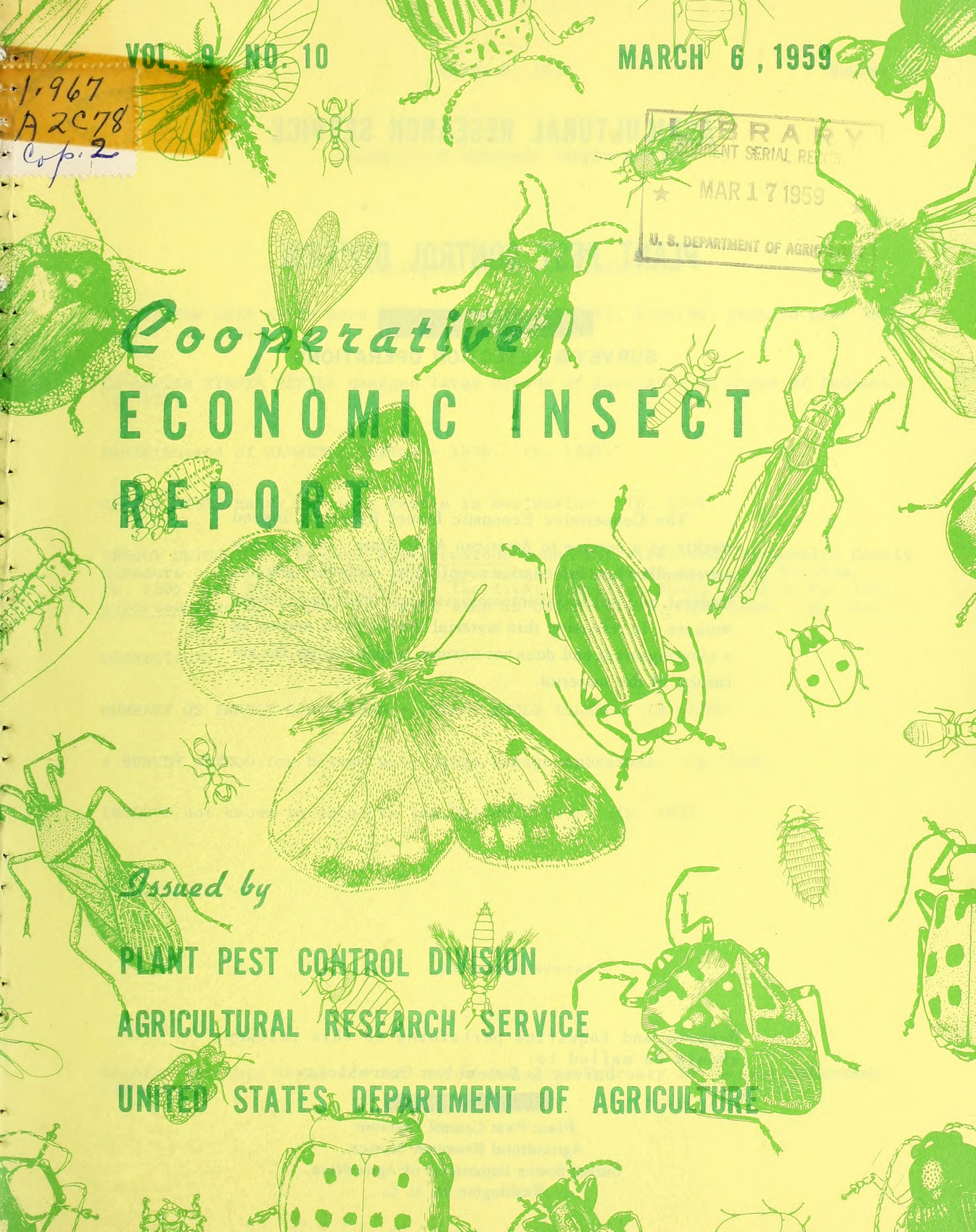

Cooperative ECONOMIC INSECT REPORT

Issued by

PLANT PEST CONTROL DIVISION

AGRICULTURAL RESEARCH SERVICE

UNITED STATES DEPARTMENT OF AGRICULTURE

AGRICULTURAL RESEARCH SERVICE

PLANT PEST CONTROL DIVISION

~~PLANT PEST SURVEY~~
SURVEY & DETECTION OPERATIONS

The Cooperative Economic Insect Report is issued weekly as a service to American Agriculture. Its contents are compiled from information supplied by cooperating State, Federal, and industrial entomologists and other agricultural workers. In releasing this material the Division serves as a clearing house and does not assume responsibility for accuracy of the material.

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Survey & Detection Operations
~~Plant Pest Survey~~
Plant Pest Control Division
Agricultural Research Service
United States Department of Agriculture
Washington 25, D. C.

Volume 9 March 6, 1959 Number 10

COOPERATIVE ECONOMIC INSECT REPORT

Highlights of Insect Conditions

SERPENTINE LEAF MINER more abundant in Dade County, Florida, than in past three years. (p. 151).

COLUMBIAN TIMBER BEETLE damaged large stands of sawtimber in areas of Indiana. (p. 152).

Distribution of JAPANESE BEETLE - 1958. (p. 153).

CATTLE GRUBS heavy on range cattle in New Mexico. (p. 154).

INSECT DETECTION: Soybean cyst nematode found for first time in Dunklin County, Missouri. (p. 150). Polia legitima reported for first time from Florida (p. 150), and Ptinus clavipes for the first time from South Carolina (p. 155). Imported fire ant found for first time in Union Parish, Louisiana. (p. 155).

CORRECTIONS. (p. 155).

SUMMARY OF INSECT CONDITIONS - 1958 - RHODE ISLAND. (p. 156).

A SURVEY METHOD for balsam gall midge damage appraisal. (p. 159).

INSECTS not known to occur in the United States. (p. 163).

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Reports for this issue are for the week ending February 27, unless otherwise indicated.

WEATHER BUREAU 30-DAY OUTLOOK

MARCH 1959

The Weather Bureau's 30-day outlook for March calls for temperatures to average above seasonal normals along the West Coast and generally over the northwestern fourth of the Nation. Below normal temperatures are indicated for the West Gulf States and the Far Southwest, and also from the Great Lakes eastward through New England. In unspecified areas, near to slightly above normal temperatures are expected to prevail. Precipitation is expected to exceed normal along the Gulf Coast and over the Southeast as well as in the Pacific Northwest. Subnormal amounts are indicated over the Central and Southern Plateau States, Southern California, the Northern Plains and the Central North Atlantic States. In unspecified areas about normal amounts are indicated.

Weather forecast given here is based on the official 30-day "Resume and Outlook", published twice a month by the Weather Bureau. You can subscribe through Superintendent of Documents, Washington 25, D. C. Price $4.80 per year, $2.40 a half year.

WEATHER OF THE WEEK ENDING MARCH 2

Unseasonably mild, dry, sunny weather prevailed most of the week over much of the country. Thawing occurred in northern areas on several days, and depths of the snow cover which remained near the Canadian Border at lower elevations was reduced. No serious storms or floods were reported. Temperatures for the week averaged a few degrees above normal everywhere except in the Northeast, where averages were a few degrees below normal due to very low temperatures during the first half. Subzero minima were recorded at many extreme north central stations on the 24th and many northeastern stations on the 25th. Frost has penetrated the soil 40 to 60 inches in northern Connecticut and to unusual depths over all the Northeast. Above-normal temperatures for the past week covered a greater portion of the country than those for any other week since November 10, and some central areas reported the warmest week since that time.

Heavy precipitation was mostly limited to the Gulf and lower Atlantic coastal areas and western Washington State. The heavy rains in the South occurred during the first half of the week,as a cold front moved slowly southward, and totals ranged up to 7 inches at New Orleans, Louisiana. Totals which ranged up to 3 inches in western Washington accumulated from intermittent light amounts which fell throughout the week. Up to near an inch fell in a belt extending from Little Rock, Arkansas, to Detroit, Michigan, but elsewhere totals were light, with none at all in California, Arizona, New Mexico and central Nebraska. More moisture is needed in the entire State of New Mexico and much of western Texas. Reports from nearby Oklahoma indicate that the accumulated precipitation deficiency for the past 5 months has been among the greatest on record, especially in central and southwestern portions. The snow cover at the end of the week had disappeared at lower elevations in the Far West and in the Great Plains as far north as South Dakota. In the upper Mississippi Valley the cover extends to northern Iowa, where 24-inch depths were reported at midweek. In the Northeast depths range up to 50 inches at Boonville, New York. (Summary supplied by U. S. Weather Bureau).

CEREAL AND FORAGE INSECTS

GREENBUG (Toxoptera graminum) - TEXAS - Causing extensive damage to oats in Zavala and Bandera Counties. Some fields in Bandera County plowed under. (Tex. Coop. Rpt.). Infestations averaged 1-5 per linear foot in Falls, McLennan, Hill, Johnson, Navarro and Limestone Counties in the central area. One infestation of 15-25 per linear foot observed in Ellis County. The condition in grain has improved. (Hawkins). KANSAS - Found on wheat in Labette and Cherokee Counties. Populations ranged 0-6 per linear foot of row. (Peters). ARKANSAS - None found in cereal crops in Jefferson, Lincoln, Desha, Chicot, Ashley and Poinsett Counties. (Ark. Ins. Sur., Feb. 21). OKLAHOMA - Scattered populations in fields of small grains ranged 0-7 per linear foot in the east central area. (VanCleave). Populations remain light in Cleveland and McClain Counties; counts range 0-1 per linear foot. (Pennington). Small numbers found in two wheat fields near Lone Wolf, Kiowa County. (Hudson). Populations in eastern half of Tillman County building up rapidly, some control started. Counts ranged 75-100 per linear foot in 2 fields. (Hatfield).

ENGLISH GRAIN APHID (Macrosiphum granarium) - ARIZONA - Infestations on small grains in Pinal County declining. Averaged 4.5 per plant on barley beginning to head. (Ariz. Coop. Sur.). ARKANSAS - Small numbers, less than one per linear foot, in southeastern area. (Ark. Ins. Sur., Feb. 21). OKLAHOMA - Found in conjunction with a Toxoptera graminum infestation in field of oats near Wagoner. M. granarium averaged 7 per linear foot. (VanCleave).

APPLE GRAIN APHID (Rhopalosiphum fitchii) - OKLAHOMA - Populations in most fields of small grains averaged less than 10 per linear foot in east central area. (VanCleave). Counts ranged 125-300 per linear foot in 2 wheat fields in eastern Tillman County. (Hatfield). Numbers low at Lone Wolf, Kiowa County. (Hudson). Populations remain low in small grain in Cleveland and McClain Counties. (Pennington).

WINTER GRAIN MITE (Penthaleus major) - TEXAS - Medium to heavy infestations observed on volunteer grain in Falls and Bandera Counties. (Tex. Coop. Rpt.). Light infestations observed in McLennan, Hill and Navarro Counties while no damage was apparent. Causing extensive damage to volunteer grain in Johnson County. (Hawkins). KANSAS - Found in one field in Labette County. Populations averaged about 12 per linear foot of row. (Peters). CALIFORNIA - Heavy infestation damaging wheat in the Montague area of Siskiyou County. (Cal. Coop.Rpt.). OKLAHOMA - Scattered infestations in some fields of small grain in east central area. Counts averaged less than 10 per linear foot. (VanCleave). Small numbers found in two wheat fields in Lone Wolf area. (Hudson). Abundant in an oat field in the Moore area. (Pennington).

SPOTTED ALFALFA APHID (Therioaphis maculata) - KANSAS - Counts per 25 plants from February 20 to 22 were 0 in Pottawatomie, Riley, Geary, Cloud and Republic Counties; 0-11 in Marion County; 19 in Butler County; and 25-173 in Cowley County. (Simpson, Burkhardt). Populations ranged from 0 to approximately 10 per plant in eastern and southeastern areas. (Peters). OKLAHOMA - Populations ranged 0-150 per square foot in most alfalfa fields in Grady, Garvin and Cleveland Counties. One field in Lindsay area had average counts of 300 per square foot. (Pennington). None noted in east central area or in fields checked in Arkansas River bottoms in Sequoyah County. (VanCleave, Washum). Counts averaged 720 per square foot of crown area in some fields of alfalfa in Payne County. An increase over previous week's count of 504 per square foot. (Ketner). NEW MEXICO - Occasional heavy infestation in Grant County alfalfa fields. Young stands in Virden Valley being damaged by heavy populations. (N. M. Coop. Rpt.). ARIZONA - Infestation in alfalfa fields in Maricopa County averaged 0.21 per trifoliate leaf; a slight decline from the previous week. Infestations also reported very light in the Casa Grande and Yuma areas. (Ariz. Coop. Sur.).

PEA APHID (Macrosiphum pisi) - KANSAS - Populations ranged 0-5 per plant in east central, southeast and northeast counties. (Peters). ARKANSAS - Averaged 2-3 per square foot in southeastern area. (Ark. Ins. Sur., Feb. 21). OKLAHOMA - Populations continue to increase slightly in alfalfa in east central area. Counts ranged 10-50 per square foot. (VanCleave). NEW MEXICO - Light to moderate infestations in alfalfa fields in Cliff-Gila area, Grant County. Coccinellid adults and larvae reduced populations considerably in alfalfa fields in southern counties. (N. M. Coop. Rpt.).

CUTWORMS - NEW MEXICO - Damaging young alfalfa in Hidalgo and Luna Counties. (N. M. Coop. Rpt.).

ALFALFA WEEVIL (Hypera postica) - NORTH CAROLINA - Larvae actively feeding in Richmond and Rowan Counties on alfalfa. (Jones, Thompson). SOUTH CAROLINA - Larvae and adults present and feeding in alfalfa in Spartanburg County (February 19) and larvae active in Laurens County. (Nettles, et al.). VIRGINIA - Larvae, one per bud, found on all alfalfa plants examined in a Pittsylvania County field. (Reynolds).

A THRIPS (Frankliniella sp.) - NEW MEXICO - Very abundant in alfalfa fields in southern counties. (N. M. Coop. Rpt.).

MORMON CRICKET (Anabrus simplex) - NEVADA - Recent checks of known egg-bed areas confirm indication that it will be necessary to bait approximately 10,000 acres of infestation to protect range sources involved. (PPC, West. Reg., Jan. Rpt.).

STRIPED GARDEN CATERPILLAR (Polia legitima) - FLORIDA - Larva collected on goldenshower tree (Cassia fistula), November 6, 1955, at Gainesville, Alachua County, is first record for the State. Det. H. W. Capps. (Fla. Coop. Sur.).

SOYBEAN CYST NEMATODE (Heterodera glycines) - VIRGINIA - Confirmed identifications, as of January 30, are confined to 5 properties in Nansemond County, representing 380 acres. NEW JERSEY - Samples from 113 properties were processed with negative results. (PPC, East. Reg., Jan. Rpt.). ARKANSAS - Positive specimens were found on 5 properties with a total of 177 acres in Mississippi County. NORTH CAROLINA - Positive specimens were found on 1 property of 75 acres in Currituck County. OKLAHOMA - Examination of samples on hand were negative. MISSISSIPPI - Surveys in 7 delta counties gave negative results. (PPC, So. Reg., Jan. Rpt.). MISSOURI - Two new infestations were found during January. One consisted of 40 acres in Pemiscot County, within the regulated area. The other was found in Dunklin County, the first infestation in the county. (PPC, Cent. Reg., Jan. Rpt.).

FRUIT INSECTS

SCALE INSECTS - CALIFORNIA - In Glenn County, a medium infestation of Aspidiotus perniciosus damaged apple trees in Hamilton City and Parlatoria oleae was heavy on olive trees in the Willows area. Aspidiotus hederae was medium on peach trees in the Hemet area, Riverside County. (Cal. Coop. Rpt.). ARIZONA - An old infestation of Aonidiella aurantii was observed to be spreading near the city of Yuma. Control measures have been taken. (Ariz. Coop. Sur.).

A CERAMBYCID (Oberea sp.) - TEXAS - Damaged plum trees in Coryell County by boring in the twigs. (Harding).

MEXICAN FRUIT FLY (Anastrepha ludens) - TEXAS - Traps were operated throughout the month in Cameron, Dimmit, Hidalgo, Webb and Willacy Counties. The number of traps was increased slightly in the Winter Garden sections and at Laredo. No Mexican fruit flies were trapped. (PPC, So. Reg., Jan. Rpt.). ARIZONA - A total of 178 traps in 33 locations in Yuma and Santa Cruz Counties were inspected 4 times during the month with negative results. CALIFORNIA - All trapping activities were maintained on regular schedule with negative results. (PPC, West. Reg., Jan. Rpt.). MEXICO - In the states of Baja California and Sonora, 2,065 traps were operated on 936 properties and 7,587 inspections gave negative results. (PPC, Mex. Reg., Jan. Rpt.).

CITRUS BLACKFLY (Aleurocanthus woglumi) - MEXICO - Inspection of 127,608 citrus trees on 1,920 properties revealed 197 trees infested on 26 properties located in Municipio Hidalgo in the state of Tamaulipas, and in the vicinity of Allende and at Linares, in Nuevo Leone. The heaviest and most extensive infestation was at Allende. Inspections were completed at Matamoros, Tamaulipas, with negative results. (PPC, Mex. Reg., Jan. Rpt.).

MEDITERRANEAN FRUIT FLY (Ceratitis capitata) - No suspicious specimens were found in examination of traps operated in ALABAMA, FLORIDA, LOUISIANA and TEXAS. (PPC, So. Reg., Jan. Rpt.).

TRUCK CROP INSECTS

DIAMONDBACK MOTH (Plutella maculipennis) - ARIZONA - Light on heads of cauliflower in the Yuma area. (Ariz. Coop. Sur.).

A FLEA BEETLE (Phyllotreta sp., probably pusilla) - TEXAS - Caused serious damage to turnips and mustard in Winter Garden area. (Harding).

GREEN PEACH APHID (Myzus persicae) - FLORIDA - All stages reported on potatoes in Dade County. Appeared in abundance about two months earlier than usual, but are not so abundant at present and appear to be disappearing. (Wolfenbarger, Feb. 19).

SERPENTINE LEAF MINER (Liriomyza sp.) - FLORIDA - Adults on potatoes, tomatoes, beans and cucurbits in entire Redlands area of Dade County. More abundant than for possibly the past three years. (Wolfenbarger, Feb. 19).

SWEETPOTATO WEEVIL (Cylas formicarius elegantulus) - Surveys in 69 counties and parishes revealed a total of 20 new infestations in 11 counties and parishes. No new areas were found to be infested. (PPC, So. Reg., Jan. Rpt.).

ONION THRIPS (Thrips tabaci) - ARIZONA - Infestations that averaged 6-7 per onion plant in some fields in the Casa Grande area of Pinal County have declined to less than 2 per plant. (Ariz. Coop. Sur.)

TOBACCO INSECTS

TOBACCO FLEA BEETLE (Epitrix hirtipennis) - GEORGIA - Light on tobacco in Bulloch, Wayne, Ware and Jeff Davis Counties and moderate in Tattnall County. (Johnson).

VEGETABLE WEEVIL (Listroderes costirostris obliquus) - GEORGIA - Light to moderate on tobacco in Bulloch, Tattnall, Wayne, Pierce, Ware and Jeff Davis Counties. (Johnson).

COTTON INSECTS

PINK BOLLWORM (Pectinophora gossypiella) - ARKANSAS - Larvae were found in trash from 6 locations representing more than 6,000 acres in Pulaski County and from one location exceeding 900 acres in Yell County. OKLAHOMA - Surveys indicate that larvae in bolls on standing stalks were killed by severe freezing weather, but some live larvae were found in surface debris at the same time. TEXAS - Infestation in material left in fields is much lighter in lower Valley counties than in 1958. (PPC, So. Reg., Jan. Rpt.).

ARIZONA - Thirteen new infestations found in Maricopa County in or near previously-infested areas and 2 found in Pinal County near previously-infested areas. No moths were taken in 3 light traps operated adjacent to infested properties in Maricopa County during January. (PPC, West. Reg., Jan. Rpt.). MEXICO - Debris inspection of 168 fields in the states of Nuevo Leone and Tamaulipas resulted in the finding of 82 live larvae. Inspection of 3,642 cotton blooms in one 15-acre location in the Culiacan zone, State of Sinaloa, gave negative results. Inspection of 28 bushels of cracked kenaf pods in this same zone gave negative results. (PPC, Mex. Reg., Jan. Rpt.).

FOREST, ORNAMENTAL AND SHADE TREE INSECTS

SPRING CANKERWORM (*Paleacrita vernata*) - KANSAS - Males and females collected on tree bands in Riley County. (Thompson, Poorbaugh).

GYPSY MOTH (*Porthetria dispar*) - NEW JERSEY - Intensive scouting of 225 woodland acres and 80 acres of open country around the 1958 attracting trap site at Hibernia was negative. PENNSYLVANIA - No egg masses found in area scouted around a 1957 positive trap site in Bucks County. (PPC, East. Reg. Jan. Rpt.).

SOUTHERN PINE BEETLE (*Dendroctonus frontalis*) - TEXAS - Active in 3 locations near Sour Lake in Hardin County. All stages were present in 12 brood trees at one location. (Texas Coop. Rpt.).

DEODAR WEEVIL (*Pissodes nemorensis*) - PENNSYLVANIA - Infested Scotch pine in Wayne County during the fall of 1958. Det. U. S. N. M. (Drooz).

COLUMBIAN TIMBER BEETLE (*Corthylus columbianus*) - INDIANA - Reported from soft maple in the southern part of the State. Extension foresters report large stands of sawtimber in the Wabash, White and Patoka River Basins ruined by this beetle. Nearly all the lumber is ruined by the tunnels and the staining of the fungus. (Schuder).

SAWFLIES - TEXAS - Overwintering cocoons heavily parasitized in northern Hardin County. This may indicate that very few adults will emerge and lay eggs this spring. (Texas Coop. Rpt.).

AN APHID (*Rhopalosiphum rufomaculatum*) - PENNSYLVANIA - Very heavy on chrysanthemums in a greenhouse in Johnstown, Cambria County, February 26. (Udine).

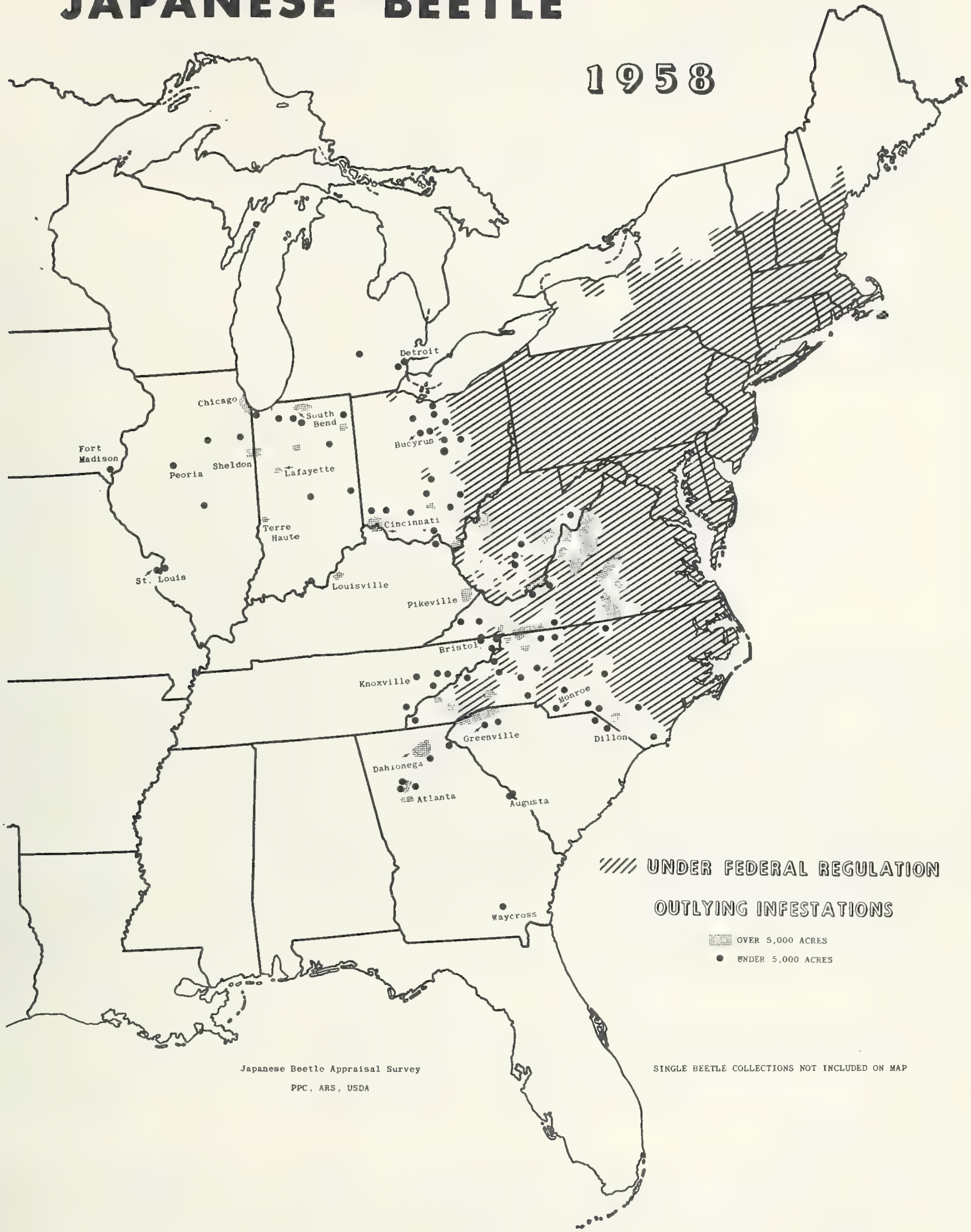
SCALE INSECTS - MARYLAND - *Unaspis euonymi* heavy on euonymus at Baltimore, February 15. (U. Md., Ent. Dept.). NORTH CAROLINA - *U. euonymi* infesting euonymus in Harnett County. (Scott, Farrier). *Pseudaulacaspis pentagona* infesting privet in Cumberland County. (Monroe, Farrier). CALIFORNIA - Heavy populations of *Aspidiotus californicus* occurred on Monterey pine in Stockton, San Joaquin County, while *A. camelliae* and *A. hederae* were light on euonymus plants in Golden Gate Park, San Francisco. *Lepidosaphes ceanothi* heavy on *Ceanothus crassifolius* in the Yucaipa area, San Bernardino County. (Cal. Coop. Rpt.).

BOXWOOD LEAF MINER (*Monarthropalpus buxi*) - VIRGINIA - Very heavy on boxwood plants (averaged 5-12 per 3-foot plant) at one location in Lynchburg, Campbell County. (Willey).

A TEPHRITID (*Eutreta pacifica*) - CALIFORNIA - Medium to heavy and caused galls on chrysanthemum plants in Kentfield, Marin County. This is the first record for this host in the State. (Cal. Coop. Rpt.).

JAPANESE BEETLE

1958



Japanese Beetle Appraisal Survey
PPC, ARS, USDA

SINGLE BEETLE COLLECTIONS NOT INCLUDED ON MAP

INSECTS AFFECTING MAN AND ANIMALS

CATTLE GRUBS (Hypoderma spp.) - VIRGINIA - Survey of one cattle herd in each of 5 counties revealed that of the grubs extracted, 163 were H. lineatum and 55 were H. bovis. No H. bovis have been extracted east of the Blue Ridge Mountains to date this year. (Turner, Morris, Morgan). NORTH CAROLINA - Examination of 141 animals in Davidson County showed only one bull purchased outside the county to be infested, and this animal had over 50 grubs. (Bernhardt). KANSAS - Averaged 7.5 per head in 63 infested animals out of 92 examined in Ellis County. Of 8 yearlings checked in Cheyenne County, grubs averaged 2.5 per head in 5 infested animals. (Knapp). NEW MEXICO - Reports from most counties indicate heavy infestations on range cattle. (N. M. Coop. Rpt.). UTAH - Numerous in young cattle in some parts of Washington County. (Knowlton).

CATTLE LICE - UTAH - Numerous in some Washington and San Juan cattle herds, severe on livestock near Ogden, Weber County, and moderate to severe throughout Emery County. (Knowlton, Olson).

SHEEP KED (Melophagus ovinus) - UTAH - Moderate to severe in Emery County. (Knowlton).

SHEEP SCAB MITE (Psoroptes equi ovis) - VIRGINIA - Found on 122 of 201 sheep inspected in State during January. (Va. Livestock Health Bull.).

TROPICAL RAT MITE (Ornithonyssus bacoti) - CALIFORNIA - Caused irritation to members of households in Bakersfield, Kern County, and in Carmichael, Sacramento County. (Cal. Coop. Rpt.).

BROWN DOG TICK (Rhipicephalus sanguineus) - CALIFORNIA - Apparently more numerous this year, with reports received from San Francisco and Fresno. (Keh).

STORED-PRODUCT INSECTS

KHAPRA BEETLE (Trogoderma granarium) - A total of 173 inspections were made in NEW JERSEY, NEW YORK, PENNSYLVANIA and CONNECTICUT. No positive determinations have been received. (PPC, East. Reg. Jan. Rpt.). ALABAMA - Five initial inspections were made in Barbour County and 4 in Henry County, with negative results. A total of 77 inspections were made at possible points of entry in 23 counties. OKLAHOMA - Three inspections in Garfield County were negative. TENNESSEE - Inspections were made of 29 establishments in 8 counties, with no infestations found. TEXAS - Inspections were made on 259 properties in 45 counties. (PPC, So. Reg., Jan. Rpt.). ARIZONA - First infestation for 1959 was found January 7 in Mesa County. (PPC, West. Reg., Jan. Rpt.). MEXICO - A total of 303 inspections were made in the states of Baja California, Sonora, Jalisco and Coahuila. No positive determinations were received during the month. (PPC, Mex. Reg., Jan. Rpt.).

SAW-TOOTHED GRAIN BEETLE (Oryzaephilus surinamensis) - UTAH - Common pest of granaries and many homes throughout Emery County. (Knowlton).

BENEFICIAL INSECTS

CONVERGENT LADY BEETLE (Hippodamia convergens) - KANSAS - Averaged less than one per square foot in a Linn County alfalfa field. (Peters). OKLAHOMA - Populations averaged 0.3 per square yard in some Payne County alfalfa fields. (Bryan). Occasional adult noted in fields of small grains and alfalfa in east central area (VanCleave) and in Garvin and Cleveland Counties. (Pennington).

MISCELLANEOUS INSECTS

IMPORTED FIRE ANT (Solenopsis saevissima richteri) - LOUISIANA - Union Parish was found infested during January, bringing the total number of infested parishes to 45. TENNESSEE - A total of 277 sites were inspected in Fayette, Hardeman, Haywood, McNairy, Shelby and Tipton Counties with negative results. Treatment was applied to a total of 110,307 acres during January. (PPC, So. Reg., Jan. Rpt.).

BROWN SPIDER BEETLE (Ptinus clavipes) - SOUTH CAROLINA - Found in abundance in a home in Aiken, Aiken County, and apparently feeding on a wool rug. This is a new record for the State. Det. T. J. Spilman. (McAlister).

GERMAN COCKROACH (Blattella germanica) - NORTH CAROLINA - Populations difficult to control in Wake County. (Smith).

EASTERN SUBTERRANEAN TERMITE (Reticulitermes flavipes) - MARYLAND - Damaged a newly-constructed home at Westminster, Carroll County, February 18. (U. Md., Ent. Dept.). INDIANA - Has begun to swarm in homes in Tippecanoe County. (Osmun).

CORRECTIONS

CEIR 9(5):52 - IMPORTED FIRE ANT - "Treatments were underway in all 10 infested states....", should be changed to read "Treatments were underway in all 9 infested states....".

CEIR 9(8):106 - Distribution of alfalfa weevil should be statewide for Connecticut. Remaining counties were found infested during 1957.

CEIR 9(9):135 - Under Washington summary, last sentence under highlights should read: "SPOTTED ALFALFA APHID was recorded for the first time in the State and SHALLOT APHID was recorded for the first time on strawberries."

LIGHT TRAP COLLECTIONS

	Pseudaletia unipuncta	Agrotis ypsilon	Feltia subterranea	Prodenia ornithogalli
ARIZONA				
Mesa 2/18-24				18
FLORIDA				
Gainesville 2/17-23			8	
Quincy 2/10-16			3	
LOUISIANA				
Baton Rouge 2/20-26	1	2	9	2
Franklin 2/16-23	3	1	17	46
SOUTH CAROLINA				
Charleston 2/23-3/1	5	4	8	3

SUMMARY OF INSECT CONDITIONS - 1958

RHODE ISLAND

Reported by H. L. Hansen*

Highlights: ALFALFA WEEVIL was found for the first time in Rhode Island during 1958. The range and size of population indicate it is probably the second season of establishment in the State. It is expected to reach economic proportions during 1959. EUROPEAN CORN BORER populations were lower than for five years. The mean figure for the statewide fall abundance survey progressed from 39 in 1954, to over 300 in 1957. The figure for 1958 was 30. Two serious local outbreaks of ARMYWORM occurred on millet and corn. During late summer ORANGE-STRIPED OAKWORM caused more concern among the rural and suburban public than any other insect.

Cereal and Forage Insects: CORN LEAF APHID (Rhopsalosiphum maidis) was heavy on corn in the Newport area in August. EUROPEAN CORN BORER (Pyrausta nubilalis) populations were negligible as indicated by the fall abundance survey. An extremely prolonged cool, wet spell during the spring and early summer may have had an effect in reducing the population. An ARMYWORM (Pseudaletia unipunctata) outbreak reduced 10 acres of corn to stems and midribs in North Kingstown during August and was also heavy in a field of millet in Westerly. PEA APHID (Macrosiphum pisi) increased in June to moderate populations on alfalfa. MEADOW SPITTLEBUG (Philaenus leucophthalmus) occurred in negligible numbers on alfalfa and red clover in South Kingstown. Moderate numbers of adult CLOVER ROOT CURCULIO (Sitona hispidula) were swept from alfalfa and red clover fields in all areas in early August. MARGINED BLISTER BEETLE (Epicauta pestifera) adults caused light damage to alfalfa in August in North Kingstown. ALFALFA WEEVIL (Hypera postica) was first collected in Rhode Island August 1. At that time counts were 1-3 adults per 100 sweeps in Providence, Kent and Washington Counties. Few larvae were present in August, but an increase was noted October 17, in South Kingstown. TARNISHED PLANT BUG (Lygus lineolaris) and CLOVER SEED CHALCID (Bruchophagus gibbus) were found in moderate numbers in red clover and alfalfa in South Kingstown during late July and August.

Fruit Insects: CODLING MOTH (Carpocapsa pomonella) eggs were first noted on fruit June 17, in Kenyon. APPLE MAGGOT (Rhagoletis pomonella) was heavy and first reported ovipositing August 22. PEAR LEAF BLISTER MITE (Eriophyes pyri) was heavy on pear foliage in Exeter in late July. PEAR-SLUG (Caliroa cerasi) skeletonized cherry leaves in Warren, Bristol and North Providence during early July. Old injury of PLUM CURCULIO (Conotrachelus nenuphar) was observed on fruit in South Kingstown in June. BLACK CHERRY APHID (Myzus cerasi) was abundant on cherry in the Smithfield area during May. PEACH TREE BORER (Sanninoidea exitiosa) larval activity was noted in Woonsocket in July. There was a heavy emergence of SHOT-HOLE BORER (Scolytus rugulosus) from apricot trees in Warwick in early September. RASPBERRY SAWFLY (Monophadnoides geniculatus) was a problem on raspberry in Esmond during June. Grape buds in West Warwick were attacked by ROSE CHAFER (Macrodactylus subspinosus) during June. CHAIN-SPOTTED GEOMETER (Cingilia catenaria) was locally abundant during July, feeding on blueberry foliage on Conanicut Island.

Truck Crop Insects: POTATO FLEA BEETLE (Epitrix cucumeris) was heavy on sprouting potato foliage in West Kingston at the end of May. Injury was heavy on potato and tomato plants in South Kingstown by June 17. The new generation was 7-10 days late in 1958 with the peak of adult activity reached in Kingston August 1. First egg masses of COLORADO POTATO BEETLE (Leptinotarsa decemlineata) were noted in Newport June 10. Larvae were moderate on tomato plants in Providence and North Scituate July 9. The first adults of THREE-LINED POTATO BEETLE (Lema trilineata) were observed in West Kingston June 16 with slight damage in inadequately sprayed potato fields July 10. Asparagus was attacked during early summer by adults of SPOTTED ASPARAGUS BEETLE (Crioceris duodecimpunctata) and ASPARAGUS BEETLE (C. asparagi) in all areas. CABBAGE MAGGOT (Hylemya brassicae) larvae infested radishes in North Scituate in early June as well as cantaloup seedlings in Kingston. Mature CABBAGE LOOPER (Trichoplusia ni) larvae were common on cabbage by August 8. At this time, adults of IMPORTED CABBAGE WORM (Pieris rapae) were noted ovipositing in the Narragansett area and CABBAGE APHID (Brevicoryne brassicae) was moderate.

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* Based on data contributed by J. A. Mathewson, J E. Panone, W. N. Stoner, T. W. Kerr, K. E. Hyland, N. E. Caroselli, F. L. Howard, G. J. Stessel, A. V. Boaro, J. T. Hannah, H. W. Peabody and G. B. Tibbitts.

Forest, Ornamental and Shade Tree Insects: ORANGE-STRIPED OAKWORM (Anisota senatoria) was very heavy locally throughout the State. Small larvae first appeared in mid-August and fed until late September. Pupation was general about September 22. A heavier than usual population of EASTERN TENT CATERPILLAR (Malacosoma americanum) occurred principally on wild cherry in most areas. First instar larvae were observed in Warwick April 18. First hatching of GYPSY MOTH (Porthetria dispar) occurred in Little Compton May 2. Various other defoliators occurred locally. IMPORTED WILLOW LEAF BEETLE (Plagiodera versicolora) damaged nursery stock in Warwick in the early summer. JAPANESE BEETLE (Popillia japonica) was first noticed July 1 in Kingston on sassafras. Adults were generally light throughout the State. ASIATIC GARDEN BEETLE (Autoserica castanea) flights were heavy to light in Narragansett and other local areas in mid-summer. PAINTED-LADY (Vanessa cardui) larvae defoliated hollyhock in South Kingstown and Esmond during July. FALL WEBWORM (Hyphantria cunea) infestations were scattered and light beginning in early August. Zinnia and marigold plantings in the Smithfield area were damaged by STALK BORER (Papaipema nebris). PEAR-SLUG (Caliroa cerasi) damaged cotoneaster in the Middletown area and was light on roses in South Kingstown during June and July. Light feeding on various oaks by PALE TUSSOCK MOTH (Halisidota tessellaris) and RED-HUMPED CATERPILLAR (Schizura concinna)occurred in South Kingstown late in the summer. BIRCH LEAF MINER (Fenusa pusilla) adults were first observed statewide in early May. Larvae were heavy on birch in Providence in late May with adults again being evident in Warwick and Johnston at the end of June. LOCUST LEAF MINER (Chalepus dorsalis) adults fed on locust in the Warwick area in early June. HOLLY LEAF MINER (Phytomyza ilicis) was observed from late May to June in most areas of the State. BOXWOOD LEAF MINER (Monarthropalpus buxi) mines contained pupae and some adults in late May. ROSE APHID (Macrosiphum rosae) developed heavy populations on young rose growth in South Kingstown during late May. BALSAM TWIG APHID (Mindarus abietinus) was heavy on fir at the same time in the Smithfield area and later on balsam in Warwick. LARCH APHID (Cinara laricis) was reported troublesome in East Providence. In June heavy infestations of a BEECH APHID (Phyllaphis fagi) were observed in Kingston. WHITE-PINE APHID (Cinara strobi) was locally abundant in the Coventry area. EASTERN SPRUCE GALL APHID (Chermes abietis)occurred in scattered local infestations during June and July. MULBERRY WHITEFLY (Tetraleurodes mori) was severe on linden in Providence in middle August. RHODODENDRON LACE BUG (Stephanitis rhododendri) was a problem in Barrington and Newport areas in May. Heavy populations of FLETCHER SCALE (Lecanium fletcheri) on yew were evident in late May with new generation hatching from late June to mid-July in the Warwick and Middletown areas. OYSTERSHELL SCALE (Lepidosaphes ulmi) was troublesome on lilac and contoneaster with crawlers present in the North Kingstown area during mid-June. JUNIPER SCALE (Diaspis carueli) was present on arborvitae and juniper in North Kingstown, producing crawlers in mid-June. GOLDEN OAK SCALE (Asterolecanium variolosum) was heavy on white oak in Lincoln. Dogwood in Johnston was infested with TERRAPIN SCALE (Lecanium nigrofasciatum). PINE NEEDLE SCALE (Phenacaspis pinifoliae) was heavy on hemlock in Cranston during June with hatching at that time. AZALEA BARK SCALE (Eriococcus azaleae) infested rhododendron in Newport and Warwick. SPRUCE BUD SCALE (Physokermes piceae) crawlers were present in the northern area of the State during mid-July. TWO-SPOTTED SPIDER MITE (Tetranychus telarius) built up in late May on arborvitae in Foster.

Many inquiries were received regarding MAPLE BLADDER-GALL MITE (Vasates quadripedes) during May and June. ROSE CHAFER (Macrodactylus subspinosus) adults first appeared June 12 with complaints of feeding on garden flowers until July. ROSE CURCULIO (Rhynchites bicolor) was troublesome on roses in Warwick in late June. DOGWOOD TWIG BORER (Oberea tripunctata) was prevalent in nursery stock in Westerly and DOGWOOD BORER (Thamnospecia scitula) occurred in the Pawtucket area. RHODODENDRON BORER (Ramosia rhododendri) damaged some plantings in Newport and MAPLE-PETIOLE BORER (Caulocampus acericaulis) was heavy on maple in Smithfield. Many oaks throughout the State were damaged by the TWIG PRUNER (Elaphidion villosum). Several red pines in the Scituate watershed area were killed by PINE ENGRAVER (Ips pini). Pupation of SMALLER EUROPEAN ELM BARK BEETLE (Scolytus multistriatus) was delayed beyond the time when adults usually appear in Kingston. It had not begun by June 10. EUROPEAN PINE SHOOT MOTH (Rhyacionia buoliana) was detected in a planting in Johnston. Several weevils were reported locally, ARBORVITAE WEEVIL (Phyllobius intrusus) in Johnston, WHITE-PINE WEEVIL (Pissodes strobi) from Providence and BLACK VINE WEEVIL (Brachyrhinus sulcatus) from a nursery in Warwick.

Insects Affecting Man and Animals: Multiple stings from a WASP (Vespula arenaria) were involved in the death of a 66-year-old man in East Greenwich, July 16. BLACK FLIES were numerous after season of heavy rainfall in most areas of the State during April, May and early June. The weather also seemed to favor heavy populations of AMERICAN DOG TICK (Dermacentor variabilis) in all areas, mostly during May, June and July. DOG and CAT FLEAS (Ctenocephalides canis and C.felis) were abundant and troublesome in most areas during August. MOSQUITOES (Aedes fitchii, A. abserratus, A. canadensis and A. excrucians) were collected in the wooded areas of Cumberland, Lincoln and Smithfield, June 20. Larvae of a PHANTOM MIDGE (Chaoboris punctipennis) were collected in the water supply at Johnston, May 23. A commercial pheasant flock in East Greenwich was infested with SHAFT LOUSE (Menopon gallinae) in April. LITTLE HOUSE FLY (Fannia canicularis) built up at a poultry farm in Johnston during June.

Household Insects: EUROPEAN EARWIG (Forficula auricularia) continued to be of concern in and about homes throughout the State. An infestation of SILVERFISH (Lepisma saccharina) was reported from a library in Olneyville in April. ORIENTAL COCKROACH (Blatta orientalis) was prevalent in many homes throughout the State during the winter. HOUSE CENTIPEDE (Scutigera coleoptrata) caused concern in homes in Portsmouth and elsewhere during early spring. Insects damaging structural wood were reported from all areas. EASTERN SUBTERRANEAN TERMITE (Reticulitermes flavipes) flights began in early March and were reported occasionally until early June. A heavy infestation of SOUTHERN LYCTUS BEETLE (Lyctus planicollis) was found in oak flooring in Narragansett. Many complaints were received regarding BLACK CARPENTER ANT (Camponotus herculeanus pennsylvanicus) with swarming prevalent generally during June and early July. PAVEMENT ANT (Tetramorium caespitum) swarming was general during late May and June. VARIED CARPET BEETLE (Anthrenus verbasci) occurred in heavy infestations in homes at Lincoln and Narragansett. There were also reports of damage by BLACK CARPET BEETLE (Attagenus piceus) in Providence and vicinity during the winter. CASEMAKING CLOTHES MOTH (Tinela pellionella) infestations were reported from the same area. LARDER BEETLE (Dermestes lardarius) built up in the winter, killed beehives in the State and was reported from homes in Middletown and Wakefield. Some homeowners were annoyed by DRUG-STORE BEETLE (Stegobium paniceum), SAW-TOOTHED GRAIN BEETLE (Oryzaephilus surinamensis), STRAWBERRY ROOT WEEVIL (Brachyrhinus ovatus), CLOVER MITE and CLUSTER FLY (Pollenia rudis).

Beneficial Insects: HONEY BEE (Apis mellifera) swarming was common from May to August. Numerous complaints of vagrant swarms were reported. During the season, 12 percent of 116 bee yards visited contained colonies infected with American foul brood. A VELVET ANT (Dasymutilla occidentalis) was received from people concerned about the possibility that it was a fire ant.

Uniform Survey Procedure Approved By
The Lake States Forest Insect Survey Committee - 1959

BALSAM GALL MIDGE DAMAGE APPRAISAL SURVEY[1]

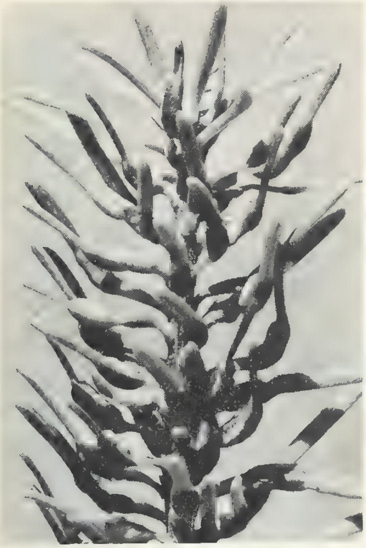

Figure 1. Needles damaged by the balsam gall midge

PURPOSE:

The balsam gall midge, Dasyneura balsamicola (Lint.), seriously damages fir by stimulating proliferation of the needles, and causes the formation of needle galls (figure 1). The galls are ovoid, about one-eighth inch long and normally occur singly on the needle. The range of the gall midge closely parallels that of balsam and Fraser fir throughout North America. Epidemics have been reported periodically since the late 1800's. During epidemics over 90 percent of the current needles may be infested, and as many as 150 needles of each current elongation may be deformed. Often up to 5 galls may form on one needle. A delayed indirect defoliation results, with the needles dropping in the fall of the first year, following larval migration. This abscission is about three years premature. Because needle fall is accelerated by bringing severely infested trees into the home, infestations frequently prohibit the harvest of trees for Christmas stock.

The minute size of all stages of the gall midge would require an unnecessarily complex sampling technique; therefore, galled needles and subsequent defoliation are employed in the appraisal survey. Of primary interest is the severity of infestation and secondarily, the past history of its presence.

INSTRUCTIONS:

Date of Survey

The survey may be conducted any time after June and before November.

Stand Requirements

The survey is restricted to balsam and Fraser fir trees between 5 and 20 feet in height, open growing stands in the lowland habitat and plantations and top cut-managed stands in any habitat.

Procedure

Five plots of 4 trees each are examined for each 40 acres. Smaller areas require 1 plot per each 5 acres. Plots are distributed uniformly throughout the stand. The quarter method automatically selects the trees. At any given station, the observer visually "quarters" the area, i.e., front left, front right, rear right and rear left. The closest tree in each imaginary quarter is sampled. On the whorl in the upper one third of the crown, select 4 branches representing the cardinal directions. For each branch, examine 10 apical current twigs and record the number of these that are infested. This requires a numerical value (rather than a check) to be entered on the tally sheet. On the same branches, estimate the damage level of ten 2 and ten 3-year-old internodes (the 2-year-old internode immediately follows the current terminal twig and the 3-year-old internode is immediately behind the 2-year-old internode). About one percent of the galled needles remain on the tree indefinitely; any other galled needles will be represented by abscission scars. Numerous abscission scars reveal a heavy infestation one or two years ago. The actual estimate of previous damage is arbitrarily made by the observer, then entered on the tally sheet. (This portion of the survey is optional and depends, in part, upon stand conditions and general vigor of the trees. In a very few instances, densely shaded, poor vigor trees drop the needles after one year (as opposed to the normal 4-10). In such cases previous damage levels will be impossible to detect.)

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[1] This survey procedure was developed in conjunction with biological-ecological studies of the balsam gall midge financed by the Wisconsin Conservation Department. Approved for publication by the Director of the Wisconsin Agricultural Experiment Station.

Evaluation

The number of galled and nongalled twigs on current wood for the stand are totalled and the percent of twigs galled determined.

$$\frac{\text{Total twigs infested}}{\text{Total twigs sampled}} \times 100 = \text{percent twigs infested}$$

The damage level is then derived from the damage level tables.

Damage Level Tables

A. Current Growth—

Percent Current Twigs Infested	Damage Level
1 - 5	Light
6 - 40	Moderate
41 - 100	Heavy

B. Previous Growth (2 and 3-year internodes only)—

Description	Damage Level
Nearly all of old needles present, several scars, 1 or no galls remaining	Light
Between 10 and 50 percent of needles absent, several galls remaining	Moderate
Over 50 percent of needles absent, abscission scars abundant, several galls remaining	Heavy

If currently heavy, the survey (only the current twig portion) is repeated the following year. If light, 3 years may elapse before another survey is necessitated.

The previous growth observations are summarized with the current growth data on the summary evaluation sheet. These data enable the observer to predict the rise and decline of populations under normal conditions and detect severe damage. Extreme heavily infested pockets are occasionally encountered. The locations of these are noted and observed at annual intervals; since these pockets may serve as infestation loci, future cutting when midge populations are low should be considered.

R. L. Giese, Research Assistant
D. M. Benjamin, Associate Professor
University of Wisconsin

BALSAM GALL MIDGE APPRAISAL SURVEY SUMMARY AND EVALUATION

Stand number ________ Date ______________________

County_______________ T _____ R _____ S _____ Forty _______ Observer _________________

Number acres _______________ Number of plots _______________

Percent current twigs infested ________________

Damage level current twigs Light___________ Medium _______ Heavy _______

Damage level of two-year-old internodes Light _______ Medium _______ Heavy ______

Damage level of three-year-old internodes Light _______ Medium _______ Heavy ______

Population trend ____

____

Survey to be conducted again ____

Marketing recommendations

BALSAM GALL MIDGE APPRAISAL SURVEY

Stand No. ________ Starting Point and Course __________ Date ____________________
County _________ T ______ R ______ S ______ Forty _____ Observer ________________
Stand Composition ____

		Current Twigs Infested Per Ten Sampled				Damage Level Old Growth Indicate L. M. or H.							
						Two year old Internode				Three year old Internode			
Plot	Tree	1	2	3	4	1	2	3	4	1	2	3	4
1	Branch 1 :												
	2 :												
	3 :												
	4 :												

Plot	Tree	1	2	3	4	1	2	3	4	1	2	3	4
2	Branch 1 :												
	2 :												
	3 :												
	4 :												

Plot	Tree	1	2	3	4	1	2	3	4	1	2	3	4
3	Branch 1 :												
	2 :												
	3 :												
	4 :												

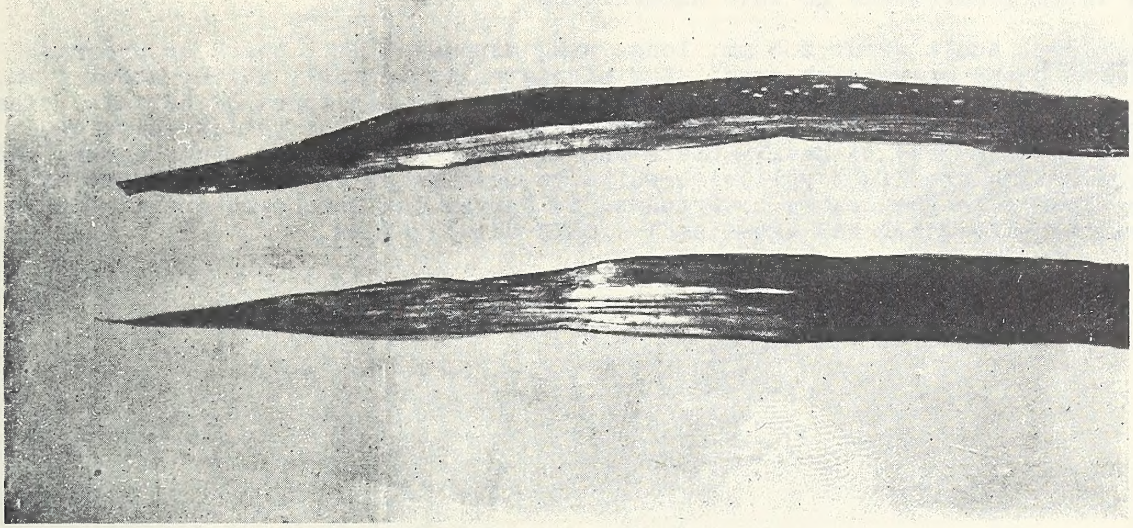
Plot	Tree	1	2	3	4	1	2	3	4	1	2	3	4
4	Branch 1 :												
	2 :												
	3 :												
	4 :												

Plot	Tree	1	2	3	4	1	2	3	4	1	2	3	4
5	Branch 1 :												
	2 :												
	3 :												
	4 :												
						Trend Check One L.__ M.__ H.__				Trend Check One L.__ M.__ H.__			

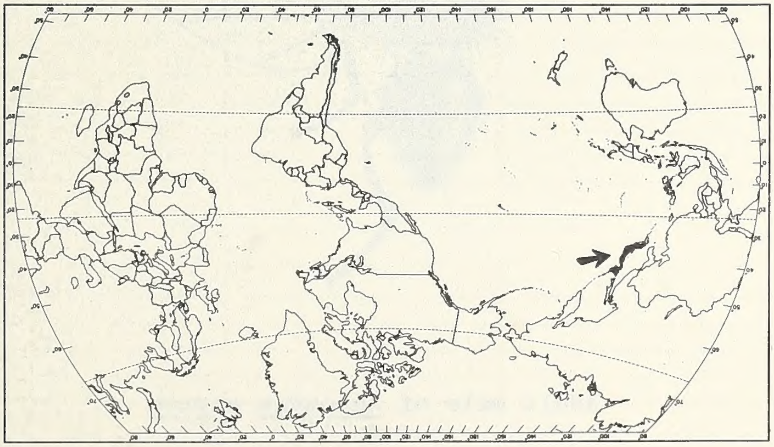
INSECTS NOT KNOWN TO OCCUR IN THE UNITED STATES

RICE LEAF MINER (*Agromyza oryzae* (Munakata))

Economic Importance: This leaf miner has been called the most serious pest of rice in Japan. Its damage is especially severe in the more northern areas where the growing season is shortened. Infested plants have dried leaf tips and reduced number of side shoots. Growth and maturity are retarded. Heavily infested fields have a scorched appearance. About four percent of the crop is lost annually to this in Akita Prefecture.



Damage to Rice Leaves



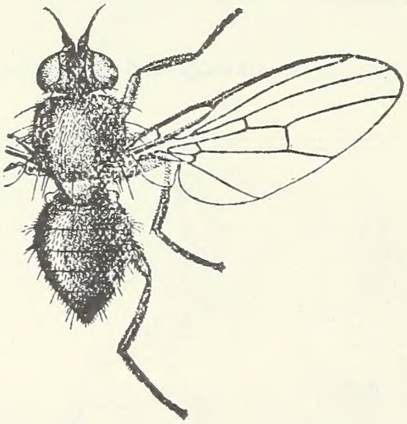
General Distribution of *Agromyza oryzae*

Hosts: Cultivated and wild rice, reed and foxtail grasses.

Distribution: Japan (north temperate).

Life History and Habits: In the Hokkaido region there are one to three generations annually. The insect passes the winter in the pupal stage in the soil on rice stubble in the fields. Adult emergence begins about June 1. The flies are very active on warm,calm days. The female inserts her eggs singly in the epidermis of the rice leaf. An infested leaf has a speckled appearance. The larvae hatch in 6 days and mine downward in the leaf. This leads to formation of a white to brown irregular blotch. The larval period covers about 10 days; after which pupation occurs, usually on the upper or lower surface of the leaf or on the sheath. Most of the flies of the earlier generations emerge after 7 to 18 days but some of the puparia remain in diapause. Most of the puparia of the later generations go into hibernation.

Description: Adult about 2.5 mm. long, wing expanse 6 mm.; black or brownish with light brown or reddish eyes. Egg elongate, elliptical, white, about 1 mm. long. Larva white, flattish, 5 mm. long. There are two types of puparia. They may be distinguished as follows: the hibernating are light yellowish-white, changing to dark-gray to nearly black and are easily dislodged from leaves; the non-hibernating are light yellowish-white to pale-green to greenish-brown and adhere closely to the leaves. (Prepared in Survey and Detection Operations in cooperation with other ARS agencies.) CEIR 9(10) 3-6-59.



Adult male of *Agromyza oryzae*

Figures (except map): Adult from Iconographia Insectorum Japonicorum. Ed. 2., 1954. 1736 pp., Tokyo. Damage from Kuwayama, S. 1928. Hokkaido Agr. Exp. Sta. Bul. No. 47. (Both publications in Japanese).